

Case 419 : Narrative

Case Vehicle (A): 2002 Volvo	Vehicle (B): 2000 Mercury
Type: V70 XC, 4-door station wagon	Type: Grand Marquis LS, 4-door sedan
Driver: 46-year-old female	Driver: 29-year-old male
CDC: 12-FYEW-3	CDC: 12-FYEW-3, 06-RDES-1

SITUATION

[1](#) [2](#) [3](#) It was near dawn on a clear morning and the asphalt road surface was dry as case vehicle (A) was traveling west at a driver-estimated speed of 45 mph (72 kph) in the inside westbound lane of a four-lane, two-way road, in an urban area. [4](#) Vehicle (B) was traveling east at an unknown speed in the inside eastbound lane of the same road and vehicle (X) was traveling east just in front of vehicle (B). As case vehicle (A) and vehicle (B) approached each other, the driver of vehicle (B) began to make a left turn onto an intersecting road, and vehicle (B) entered the westbound lane in front of case vehicle (A). The driver of case vehicle (A) did not have time to take any avoidance action and the left front of case vehicle (A) struck the left front of vehicle (B). After the offset-frontal impact, the right side of vehicle (B) contacted and sideswiped the left side of vehicle (X). All three vehicles were towed from the scene.

The police accident report (PAR) indicates B-level injuries for the driver of case vehicle (A), who was transported to a local trauma center where she was treated and released. The PAR does not provide any information on the child passenger of case vehicle (A), but an interview revealed that she did not sustain any injuries and was not treated. The PAR indicates C-level injuries for the driver of vehicle (B) and O-level injuries for the driver of vehicle (X), but they did not seek medical treatment.

GENERAL VEHICLE DAMAGE AND ESTIMATED CRASH SEVERITIES

[5](#) Damage to the front of case vehicle (A) was severe. [6](#) Direct damage began at the left corner of the front bumper and extended 77-cm across the front, resulting in a 50-percent vehicle overlap (%VOL). The maximum frontal crush was 58 cm and it occurred at the left-front bumper corner.

[7](#) Damage to the front of vehicle (B) was also severe. [8](#) Direct damage began at the left corner of the front bumper and extended 84-cm across the front, resulting in 51% VOL. The maximum frontal crush was 87 cm and it occurred at the left-front bumper corner. [9](#) The left and center sections of the front bumper and grille were damaged and pushed into the engine compartment, and the hood was crushed up and to the rear. [10](#) The left fender was crushed rearward into the front wheel and the left wheelbase was reduced by 23 cm. [11](#) Damage to the right side from the sideswipe impact with vehicle (X) was minor with a maximum crush of 1 cm, but the damage extended along the entire length of the vehicle.

[12](#) [13](#) [14](#) [15](#) [16](#) [17](#) [18](#) [19](#) [20](#) [21](#) [22](#) Using the WinSMASH crash-reconstruction program and crush profiles for both vehicles, the following impact severities were estimated for the offset-frontal impact between case vehicle (A) and vehicle (B):

	Estimated Velocity Change - kph (mph)
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Vehicle	Variable	Total	Longitudinal	Latitudinal
Case Vehicle (A)	delta V	51 (32)	-50 (-31)	9 (6)
Vehicle (B)	delta V	46 (29)	-46 (-28)	-8 (-5)

DESCRIPTION OF DAMAGE TO CASE VEHICLE (A)

Exterior

[23](#) [24](#) [25](#) [26](#) In the front, the left and center sections of the front end were crushed rearward and the plastic fascia, consisting of the bumper cover and grill, was separated from the vehicle at all but the left-most attachment point. The left headlight assembly was crushed rearward and the headlamp was shattered, and the right headlamp assembly was displaced forward from its compartment. The front of the hood was crushed up and to the rear on the left side and the hood was deflected up on the right side. The hood latch was damaged and jammed and [27](#) the left hood hinge was bent, allowing the left-rear corner of the hood to elevate [28](#) and contact and crack the lower-left corner of the windshield. [29](#) These windshield cracks radiated vertically to the header along the left A-pillar. [30](#) The right hood hinge was also bent, allowing the right-rear edge of the hood to elevate, but it did not contact the windshield. [31](#) There was no damage to the center or right sections of the windshield. [32](#) There was some buckling of the roof above the left B-pillar but there was no damage to the sunroof.

[33](#) On the left side, the fender was crushed rearward into the front wheel [34](#), resulting in a flat tire, and the front wheel was pushed rearward, reducing the left-side wheelbase by 14 cm. [35](#) The left fender was pushed into the lower section of the left A-pillar and the front edge of the door, causing the driver door to be jammed shut. There was no damage to the upper section of the left A-pillar or to the upper or lower sections of the left B-, C- and D-pillars. [36](#) The left-rear door was undamaged and operational and the left-side glazing was intact. [37](#) There was no damage to the left-rear wheel or left quarter panel.

[38](#) On the right side, the fender was buckled but [39](#) [40](#) the doors were undamaged and operational. All right-side glazing was intact and there was no damage to the right A-, B-, C- and D-pillars. [41](#) [42](#) [43](#) There was no damage to the right-side wheels or to the right quarter panel, but the right wheelbase was increased by 5 cm.

[44](#) There was no damage to the rear of case vehicle (A).

Interior

[45](#) This vehicle was equipped with steering-wheel and dash-mounted frontal-impact airbags, which deployed during the offset-frontal impact. [46](#) [47](#) The vehicle was also equipped with side-impact curtain airbags, which did not deploy.

[48](#) In the driver seating area, there was no damage to the roof, to the windshield header, to the sunvisor, or to the upper section of the left A-pillar. [29](#) There were cracks in the left section of the windshield from external contact by the hood. [49](#) There was no damage to, or contact marks on, the steering-wheel airbag and there was no damage to the airbag flaps. [50](#) There was no damage to the steering-wheel rim and [51](#) there was no rotation of the steering column. [52](#) The upper and mid portions of the instrument panel and the driver knee bolster were undamaged, [53](#) [54](#) but there was a scuffmark on the left side of the knee bolster cover. [55](#) There was no damage to the floor, to the foot controls, to the kick panel, or to [56](#) the interior of the driver door.

57 58 There was no damage in the center-front area of the interior. 59 60 61 62 63 There was also no damage in the right-front seating area. 64 In the second-row seating area, the seatbacks were folded down and jammed so that the seats would not fold up completely.

There were no intrusions into the occupant space.

OCCUPANT KINEMATICS AND INJURIES

65 The 163-cm, 52-kg (5-ft 4-in, 114-lb) 46-year-old female driver was using the three-point belt, and the belt pretensioner and steering-wheel airbag deployed during the offset-frontal impact. 66 Belt use at the time of the crash is indicated by belt loading marks on the continuous loop and activation of 67 the pretensioner with the webbing locked in an extended mode. The driver reportedly had adjusted the seat to a mid-track position.

During the offset-frontal impact, the driver moved forward relative to the vehicle interior, into the belt restraints, airbag, and knee bolster. She sustained a minimally displaced chip fracture to the left transverse process of C6 and a cervical nerve injury, possibly from neck flexion and rotation due to impact forces and shoulder-belt restraint. She sustained a contusion to the right knee from contact with the knee bolster.

68 The 135-cm, 34-kg (4-ft 5-in, 75-lb) 10-year-old female right-rear passenger was using the seat-integrated three-point belt and the pretensioner was activated. 69 There were no markings on the continuous loop, but belt use is indicated 70 by the fact that the pretensioner was activated with the belt locked in an extended mode. During the offset-frontal impact, the child passenger moved forward relative to the vehicle interior into the belt restraint. She did not sustain any injuries.

The following tables, 71 72 and attached drawings, summarize the injuries for the two occupants.

Occupant: Driver	Age: 46 years	Gender: Female		
Restraints: 3-point belt with pretensioner; steering-wheel airbag	Stature: 163 cm (5 ft, 4 in)	Mass: 52 kg (114 lb)		
Injury Description	A.I.S.	Injury Source		
—	—	Definite	Probable	Possible
Minimally displaced chip fracture, left C6 transverse process	2	—	—	Neck flexion and rotation due to impact forces and shoulder-belt restraint

Cervical nerve injury	2	—	—	Neck flexion and rotation due to impact forces and shoulder-belt restraint
Contusion, right knee	1	Knee bolster	—	—
Maximum A.I.S. Level	2	—	—	—
Injury Severity Score	5	—	—	—

Occupant: Right rear	Age: 10 years	Gender: Female		
Restraints: Seat-integrated 3-point belt with pretensioner	Stature: 135 cm (4 ft, 5 in)	Mass: 34 kg (75 lb)		
Injury Description	A.I.S.	Injury Source		
—	—	Definite	Probable	Possible
No Injury	0	—	—	—
Maximum A.I.S. Level	0	—	—	—
Injury Severity Score	0	—	—	—

CASE NO.: 419

CASE VEHICLE: 2002 Volvo

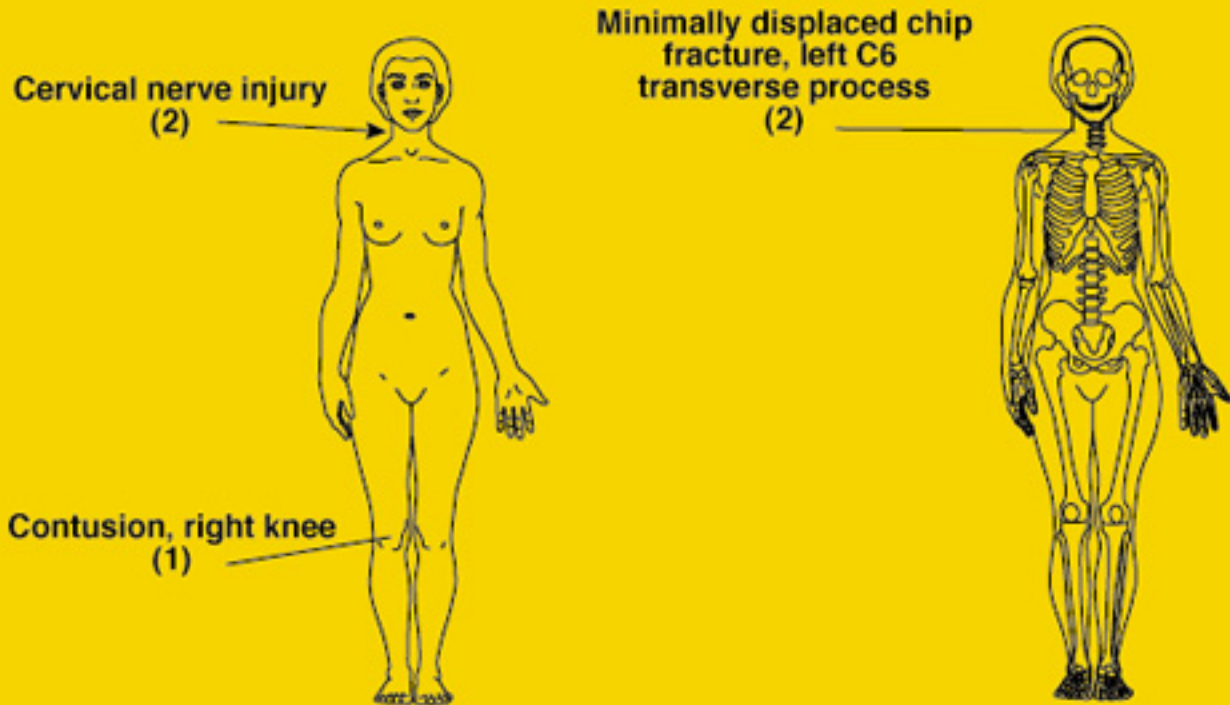
TYPE: V70 XC, 4-door station wagon

OCCUPANT: (Driver) 46-year-old female

STATURE: 163 cm (5 ft, 4 in) MASS: 52 kg (114 lb)

RESTRAINTS: 3-point belt with pretensioner; steering-wheel airbag

SEVERITY: MAIS - 2 ISS - 5



CASE NO.: 419

CASE VEHICLE: 2002 Volvo

TYPE: V70 XC, 4-door station wagon

OCCUPANT: (Right rear) 10-year-old female

STATURE: 135 cm (4 ft, 5 in) MASS: 34 kg (75 lb)

RESTRAINTS: Seat-integrated 3-point belt with pretensioner

SEVERITY: MAIS - 0

ISS - 0



No Injury



Case No.: **UM-4220**

Case Veh. (A): **2002 Volvo**

Type: **V70 XC, 4-door station wagon**

Driver: **46-year-old female**

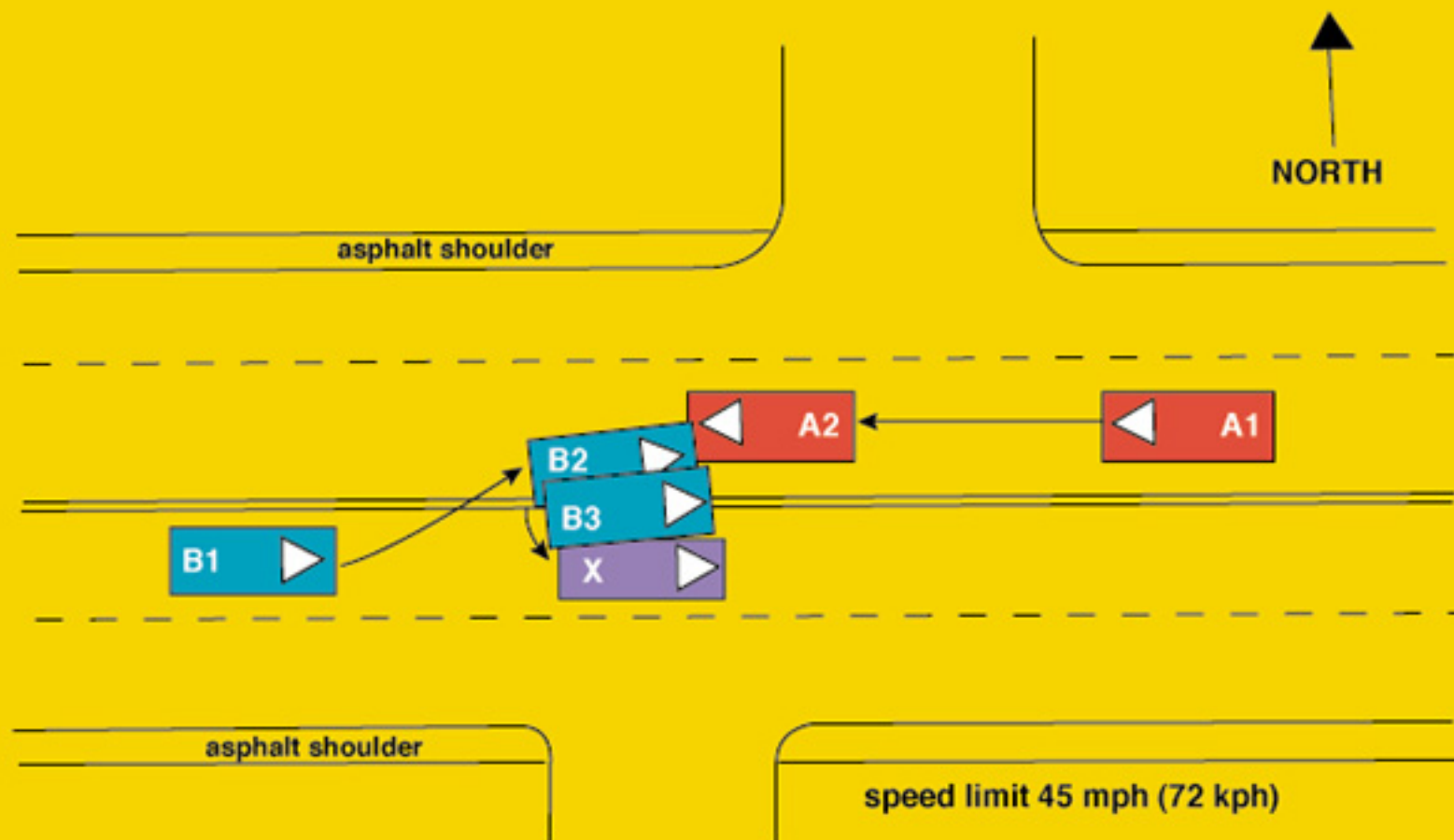
Vehicle (B): **2000 Mercury Grand Marquis LS, 4-door sedan**

Weather: **Clear**

Road Surface: **Dry**

Road Construction: **Asphalt**

Light Condition: **Dawn**



Vehicle Report

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General Conditions

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Variable Number and Name	Code Value	Code Description	Other Options
V206 — Urban/Rural Area	1	Urban	more
V207 — Limited Access Highway	0	No	more
V208 — Road Total Lanes	4	4 lanes or more	more
V209 — Intersecting Road Total Lanes	2	2 lanes	more
V210 — Road Surface Type	1	Asphalt	more
V211 — Road Defects	0	No	more
V212 — Construction Zone	0	No	more
V213 — Road Alignment Vertical Plane	1	Level	more
V214 — Road Alignment Horizontal Plane	1	Straight	more
V215 — Surface Covering	10	Dry	more
V216 — Visibility Limitation	0	None	more
V217 — Visibility Obstruction	0	None	more
V218 — Speed Limit	4	71-79 km/h .. 45 mph	more
V219 — Precipitation Type	0	None	more
V220 — Precipitation Rate	8	Not applicable	more
V221 — Temperature	9	Unknown	more

V222 — Crosswind	9	Unknown	more
V223 — Light Conditions	2	Dawn	more
V224 — Mechanical Malfunction Mention	0	No	more
V225 — Case Vehicle and Object	0	No	more
V226 — Case Vehicle Rollover	0	No	more
V227 — Case Vehicle Ran Off Roadway	0	No	more
V228 — Moving Case Vehicle/Contacted Moving Vehicle	1	Yes	more
V229 — Case Vehicle/Contacted Stopped Vehicle	0	No	more
V230 — Stopped Case Vehicle/Contactd Vehicle	0	No	more
V231 — Total Vehicles Hit By Case Vehicle	1	1 vehicle	more
V232 — Any Fire in Crash	0	No	more
V233 — Max Police Severity-PAR	2	B - Non-Incapacitating Injury	more
V234 — Driver Alcohol Involvement	0	Had not been drinking	more
V235 — Driver Alcohol BAC	80	Not tested	more
V236 — Driver Impairment Mention	0	No	more
V237 — Driven/Towed From Scene	2	Towed Due to Damage	more

Other Vehicle

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Variable Number and Name	Code Value	Code Description	Other Options
V301 — Other Vehicle VIN	2MEFM75W8YX6	—	—
V302 — Other Vehicle Manufacturer/Body Code	22229	—	—
V303 — Other Vehicle Manufacturer	222	Lincoln-Mercury	more
V304 — Other Vehicle Body Code	29	Full 110-114.9 in. wb.	more
V305 — Other Vehicle Make/Model	0929	Grand Marquis	more
V306 — Other Vehicle Model Year	2000	—	—
V307 — Other Vehicle Mass	001777 kg	—	—
V308 — Other Vehicle Number	2	Vehicle #2	more
V309 — Other Vehicle Number of Occupants	01	—	—
V310 — Other Vehicle Traveling Speed	999	Unknown	more

V311 — Highest Police Injury Severity	1	C - Possible Injury	more
V312 — Other Vehicle Type	29	Full 110-114.9 in. wb.	more
V313 — Other Vehicle Wheelbase (cm)	291 cm	—	—
V314 — Average Track Width	164 cm	—	—
V315 — Overall Length	538 cm	—	—
V316 — Overall Width (OAW)	199 cm	—	—
V317 — Front Overhang (FOH)	108 cm	—	—
V318 — Rear Overhang (ROH)	139 cm	—	—
V319 — Undeformed End Width (UEW)	165 cm	—	—
V320 — Engine Displacement	4.6 l	—	—
V321 — Engine: Number of Cylinders	08	—	—
V322 — Direct Damage Length (DDL)	084 cm	—	—
V323 — Front-End Overlap % (FEO)	51	—	—
V324 — Vehicle Overlap % (VOL)	51	—	—

Case Vehicle General



[Click for case vehicle figure](#)

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Variable Number and Name	Code Value	Code Description	Other Options
V401 — VIN	YV1SZ58DX210	—	—
V402 — Manufacturer/Body Code	95228	—	—
V403 — Vehicle Manufacturer	952	Volvo (Sweden)	more
V404 — Vehicle Body Code	28	—	—
V405 — Make/Model Code	2070	—	—
V406 — Model Year	2002	—	—
V407 — Vehicle Mass	001630 kg	—	—
V408 — Odometer Reading	888888	—	—
V409 — Number of Occupants	02	—	—
V410 — Traveling Speed	072 kph	—	—
V411 — Body Type	15	Station wagon	more
V412 — Stolen Vehicle	8	Not currently collected	more
V413 — Body Structure	2	Unitized	more
V414 — Transmission Type	1	Automatic	more
	2		

V415 — Transmission Lever Location		Console	more
V416 — Steering	1	Power	more
V417 — Brakes	1	Power	more
V418 — Brake Type	2	Disc - front wheels	more
V419 — Brake Anti-lock Device	2	Four-wheel	more
V420 — Air Conditioning in Vehicle	8	Not currently collected	more
V421 — Drive Type	3	Four wheel	more
V422 — Dual Rear Wheels	0	No	more
V423 — Original Restraint System Type	3	Airbag	more
V424 — Equipped With Roll Bar	0	No	more
V425 — Roof Type	4	Sun roof closed	more
V426 — Wheelbase	276 cm	—	—
V427 — Anti-lacerative Glass	0	None	more
V428 — Average Track Width	163 cm	—	—
V429 — Overall Length	475 cm	—	—
V430 — Overall Width (OAW)	186 cm	—	—
V431 — Front Overhang	095 cm	—	—
V432 — Rear Overhang	104 cm	—	—
V433 — Undeformed End Width (UEW)	154 cm	—	—
V434 — Engine Displacement	2.5 l	—	—
V435 — Engine: Number of Cylinders	05	—	—
V436 — Direct Damage Length (DDL)	077 cm	—	—
V437 — Front End Overlap % (FEO)	50	—	—
V438 — Vehicle Overlap % (VOL)	50	—	—

Case Vehicle Damage Description

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Variable Number and Name	Code Value	Code Description	Other Options
V501 — Maximum Crush - Front	058 cm	—	—
V502 — Maximum Crush - Right Side	000 cm	No crush (or less than 1 cm.)	more
V503 — Maximum Crush - Rear	000 cm	No crush (or less than 1 cm.)	more
V504 — Maximum Crush - Left Side	000 cm	No crush (or less than 1 cm.)	more

V505 — Maximum Crush - Roof	000 cm	No crush (or less than 1 cm.)	more
V506 — Maximum Crush - Other	000 cm	No crush (or less than 1 cm.)	more
V507 — Are Events In Chronological Order	1	Yes	more
V508 — Event 1 Impact Location	1	On Roadway	more
V509 — Event 1 Impact Configuration	11	FRONT of case veh - FRONT of contacted Vehicle	more
V510 — Event 1 Object/Vehicle Contacted	29	Full 110-114.9 in. wb.	more
V511 — Event 2 Impact Location	8	No 2nd event	more
V512 — Event 2 Impact Configuration	88	No 2nd event	more
V513 — Event 2 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V514 — Event 3 Impact Location	8	No 3rd event	more
V515 — Event 3 Impact Configuration	88	No 3rd event	more
V516 — Event 3 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V517 — Event 4 Impact Location	8	No 4th event	more
V518 — Event 4 Impact Configuration	88	No 4th event	more
V519 — Event 4 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V520 — Event 5 Impact Location	8	No 5th event	more
V521 — Event 5 Impact Configuration	88	No 5th event	more
V522 — Event 5 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V523 — Event 6 Impact Location	8	No 6th event	more
V524 — Event 6 Impact Configuration	88	No 6th event	more
V525 — Event 6 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V526 — Event 7 Impact On Road	8	No 7th event	more
V527 — Event 7 Impact Configuration	88	No 7th event	more
V528 — Event 7 Object/Vehicle Contacted	00	No object/vehicle contacted	more
V529 — Primary CDC Case Vehicle -event Number	1	Event 1	more
V530 — Primary CDC Case Vehicle	999		

- impact speed		Unknown	more
V531 — Primary CDC Case Vehicle - Estimated By	1	Investigator	more
V532 — Primary CDC Case Vehicle -crush	058	—	—
V533 — Primary CDC Case Vehicle -clock #1	12	12 o'clock	more
V534 — Primary CDC Case Vehicle letter 1 #1	06	F - Front	more
V535 — Primary CDC Case Vehicle letter 2 #1	25	Y - Side or end (F + P or L + C)	more
V536 — Primary CDC Case Vehicle letter 3 #1	05	E - Everything below belt line	more
V537 — Primary CDC Case Vehicle letter 4 #1	23	W - Wide impact area	more
V538 — Primary CDC Case Vehicle Extent #1	03	Extent 3	more
V539 — Primary CDC Case Vehicle -CDC #1	12FYEW3	—	—
V541 — Primary CDC Case Vehicle letter 1 #2	00	Missing Data/Not applicable	more
V542 — Primary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V543 — Primary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V544 — Primary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V545 — Primary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	more
V546 — Primary CDC Case Vehicle -CDC #2	9800000	—	—
V547 — Primary CDC Contacted Vehicle - Impact Speed	991	—	—
V548 — Primary CDC Contacted Vehicle - Estimated By	1	Investigator	more
V549 — Primary CDC Contacted Vehicle -crush	087	—	—
V550 — Primary CDC Contacted Vehicle -clock #1	12	12 o'clock	more
V551 — Primary CDC Contacted Vehicle letter 1 #1	06	F - Front	more
V552 — Primary CDC Contacted Vehicle letter 2 #1	25	Y - Side or end (F + P or L + C)	more

V553 — Primary CDC Contacted Vehicle letter 3 #1	05	E - Everything below belt line	more
V554 — Primary CDC Contacted Vehicle letter 4 #1	23	W - Wide impact area	more
V555 — Primary CDC Contacted Vehicle Extent #1	03	Extent 3	more
V556 — Primary CDC Contacted Vehicle -CDC #1	12FYEW3	—	—
V558 — Primary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	more
V559 — Primary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V560 — Primary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V561 — Primary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V562 — Primary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	more
V563 — Primary CDC Contacted Vehicle -CDC #2	9800000	—	—
V564 — Secondary CDC Case Vehicle - Event No	8	Not applicable	more
V565 — Secondary CDC Case Vehicle - Impact Speed	998	Not Applicable	more
V566 — Secondary CDC Case Vehicle - Estimated By	8	Not applicable (no vehicle/no impact)	more
V567 — Secondary CDC Case Vehicle -crush	998	Not Applicable	more
V568 — Secondary CDC Case Vehicle -clock #1	98	Not Applicable	more
V569 — Secondary CDC Case Vehicle letter 1 #1	00	Missing Data/Not applicable	more
V570 — Secondary CDC Case Vehicle letter 2 #1	00	Missing Data/Not applicable	more
V571 — Secondary CDC Case Vehicle letter 3 #1	00	Missing Data/Not applicable	more
V572 — Secondary CDC Case Vehicle letter 4 #1	00	Missing Data/Not applicable	more
V573 — Secondary CDC Case Vehicle Extent #1	00	Missing Data/Not applicable	more
V574 — Secondary CDC Case Vehicle -CDC #1	9800000	—	—
V576 — Secondary CDC Case	00	Missing Data/Not applicable	more

Vehicle letter 1 #2			
V577 — Secondary CDC Case Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V578 — Secondary CDC Case Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V579 — Secondary CDC Case Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V580 — Secondary CDC Case Vehicle Extent #2	00	Missing Data/Not applicable	more
V581 — Secondary CDC Case Vehicle -CDC #2	9800000	—	—
V582 — Secondary CDC Contacted Vehicle - Impact Speed	998	Not Applicable	more
V583 — Secondary CDC Contacted Vehicle - Estimated By	8	Not applicable (no vehicle/no impact)	more
V584 — Secondary CDC Contacted Vehicle -crush	998	Not Applicable	more
V585 — Secondary CDC Contacted Vehicle -clock #1	98	Not Applicable	more
V586 — Secondary CDC Contacted Vehicle letter 1 #1	00	Missing Data/Not applicable	more
V587 — Secondary CDC Contacted Vehicle letter 2 #1	00	Missing Data/Not applicable	more
V588 — Secondary CDC Contacted Vehicle letter 3 #1	00	Missing Data/Not applicable	more
V589 — Secondary CDC Contacted Vehicle letter 4 #1	00	Missing Data/Not applicable	more
V590 — Secondary CDC Contacted Vehicle Extent #1	00	Missing Data/Not applicable	more
V591 — Secondary CDC Contacted Vehicle -CDC #1	9800000	—	—
V593 — Secondary CDC Contacted Vehicle letter 1 #2	00	Missing Data/Not applicable	more
V594 — Secondary CDC Contacted Vehicle letter 2 #2	00	Missing Data/Not applicable	more
V595 — Secondary CDC Contacted Vehicle letter 3 #2	00	Missing Data/Not applicable	more
V596 — Secondary CDC Contacted Vehicle letter 4 #2	00	Missing Data/Not applicable	more
V597 — Secondary CDC Contacted Vehicle Extent #2	00	Missing Data/Not applicable	more
V598 — Secondary CDC Contacted Vehicle -CDC #2	9800000	—	—

Crash Severity

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Variable Number and Name	Code Value	Code Description	Other Options
V601 — Case Vehicle Primary Impact Number	1	—	—
V602 — Primary Impact Total Delta-V	051 kph	—	—
V603 — Primary Case Vehicle Reconstructed Longitudinal Delta-V	-050 kph	—	—
V604 — Primary Case Vehicle Reconstructed Lateral Delta-V	0009 kph	—	—
V605 — Primary Case Vehicle Reconstructed Crush Energy	0075 kJ	—	—
V606 — Primary Impact Case Vehicle - reconstruction	22	Reconstructed, moderate confidence level	more
V607 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	more
V608 — Primary Contacted Vehicle Reconstructed	046 kph	—	—

Total Delta-V			
V609 — Primary Contacted Vehicle Reconstructed Longitudinal Delta-V	-046 kph	—	—
V610 — Primary Contacted Vehicle Reconstructed Lateral Delta- V	-008 kph	—	—
V611 — Primary Contacted Vehicle Reconstructed Crush Energy	0290 kJ	—	—
V612 — Case Vehicle Secondary Impact Number	8	—	—
V613 — Secondary Case Vehicle Reconstructed Total Delta-V	888	N/A	more
V614 — Secondary Case Vehicle Reconstructed Longitudinal Delta-V	8888	—	—
V615 — Secondary Case Vehicle Reconstructed Lateral Delta- V	8888	—	—
V616 — Secondary Case Vehicle Reconstructed Crush Energy	8888	—	—

V617 — Secondary Case Vehicle Reconstruction Note	88	—	—
V618 — Secondary Case Vehicle Reconstruction Mode	8	Not applicable	more
V619 — Secondary Contacted Vehicle Reconstructed Total Delta-V	888	N/A	more
V620 — Secondary Contacted Vehicle Reconstructed Longitudinal Delta-V	8888	—	—
V621 — Secondary Contacted Vehicle Reconstructed Lateral Delta- V	8888	—	—
V622 — Secondary Contacted Vehicle Reconstructed Crush Energy	8888	—	—
V623 — Case Vehicle Primary Impact Number	1	—	—
V624 — Primary Case Vehicle Reconstructed Total EBS	051 kph	—	—
V625 — Primary Case	-050 kph		

Vehicle Reconstructed Longitudinal EBS		—	—
V626 — Primary Case Vehicle Reconstructed Lateral EBS	0009 kph	—	—
V627 — Primary Case Vehicle Reconstructed Crush Energy	0075 kJ	—	—
V628 — Primary Case Vehicle Reconstruction Note	22	Reconstructed, moderate confidence level	more
V629 — Primary Case Vehicle Reconstruction Mode	2	CDC & detailed damage	more
V630 — Primary Contacted Vehicle Reconstruction Total EBS	046 kph	—	—
V631 — Primary Contacted Vehicle Reconstruction Longitudinal EBS	-046 kph	—	—
V632 — Primary Contacted Vehicle Reconstruction Lateral EBS	-008 kph	—	—
V633 — Primary Contacted Vehicle Reconstruction	0290 kJ	—	—

Crush Energy			
V634 — Case Vehicle Secondary Impact Number	8	Not applicable	more
V635 — Secondary Case Vehicle Reconstruction Total EBS	888	N/A	more
V636 — Secondary Case Vehicle Reconstruction Longitudinal EBS	8888	—	—
V637 — Secondary Case Vehicle Reconstruction Lateral EBS	8888	—	—
V638 — Secondary Case Vehicle Reconstruction Crush Energy	8888	—	—
V639 — Secondary Case Vehicle Reconstruction Note	88	—	—
V640 — Secondary Case Vehicle Reconstruction Mode	8	Not applicable	more
V641 — Secondary Contacted Vehicle Reconstruction Total EBS	888	N/A	more
V642 — Secondary Contacted Vehicle	8888	—	—

Reconstruction Longitudinal EBS			
V643 — Secondary Contacted Vehicle Reconstruction Lateral EBS	8888	—	—
V644 — Secondary Contacted Vehicle Reconstruction Crush Energy	8888	—	—
V645 — Case Vehicle Reconstructed Impact Number	1	—	—
V646 — Case Vehicle Impact 1 Plane	1	Bumper	more
V647 — Case Vehicle Impact 1 Direct Damage Length [DDL]	077 cm	—	—
V648 — Case Vehicle Impact 1 Max Crush	058 cm	—	—
V649 — Case Vehicle Impact 1 Field-L	118 cm	—	—
V650 — Case Vehicle Impact 1 C1	058 cm	—	—
V651 — Case Vehicle Impact 1 C2	040 cm	—	—
V652 — Case Vehicle Impact 1 C3	030 cm	—	—
V653 — Case	020 cm		

Vehicle Impact 1 C4		—	—
V654 — Case Vehicle Impact 1 C5	010 cm	—	—
V655 — Case Vehicle Impact 1 C6	006 cm	—	—
V656 — Case Vehicle Impact 1 +/- D	-042 cm	—	—
V657 — Case Vehicle Reconstructed Impact Number	2	—	—
V658 — Case Vehicle Impact 2 Plane	8	Not applicable	more
V659 — Case Vehicle Impact 2 Direct Damage Length [DDL]	998	Not applicable	more
V660 — Case Vehicle Impact 2 Max Crush	998	Not applicable	more
V661 — Case Vehicle Impact 2 Field-L	998	Not applicable	more
V662 — Case Vehicle Impact 2 C1	998	Not applicable	more
V663 — Case Vehicle Impact 2 C2	998	Not applicable	more
V664 — Case Vehicle Impact 2 C3	998	Not applicable	more
V665 — Case Vehicle Impact 2 C4	998	Not applicable	more
V666 — Case	998		

Vehicle Impact 2 C5		Not applicable	more
V667 — Case Vehicle Impact 2 C6	998	Not applicable	more
V668 — Case Vehicle Impact 2 +/- D	9998	—	—
V669 — Other Vehicle Reconstructed Impact Number	1	—	—
V670 — Other Vehicle Impact 1 Plane	1	Bumper	more
V671 — Other Vehicle Impact 1 Direct Damage Length [DDL]	084 cm	—	—
V672 — Other Vehicle Impact 1 Max Crush	087 cm	—	—
V673 — Other Vehicle Impact 1 Field-L	095 cm	—	—
V674 — Other Vehicle Impact 1 C1	087 cm	—	—
V675 — Other Vehicle Impact 1 C2	086 cm	—	—
V676 — Other Vehicle Impact 1 C3	077 cm	—	—
V677 — Other Vehicle Impact 1 C4	072 cm	—	—
V678 — Other Vehicle Impact 1 C5	039 cm	—	—
V679 — Other	004 cm		

Vehicle Impact 1 C6		—	—
V680 — Other Vehicle Impact 1 +/- D	-048 cm	—	—
V681 — Other Vehicle Reconstructed Impact Number	2	—	—
V682 — Other Vehicle Impact 2 Plane	8	Not applicable	more
V683 — Other Vehicle Impact 2 Direct Damage Length [DDL]	998	Not applicable	more
V684 — Other Vehicle Impact 2 Max Crush	998	Not applicable	more
V685 — Other Vehicle Impact 2 Field-L	998	Not applicable	more
V686 — Other Vehicle Impact 2 C1	998	Not applicable	more
V687 — Other Vehicle Impact 2 C2	998	Not applicable	more
V688 — Other Vehicle Impact 2 C3	998	Not applicable	more
V689 — Other Vehicle Impact 2 C4	998	Not applicable	more
V690 — Other Vehicle Impact 2 C5	998	Not applicable	more
V691 — Other Vehicle Impact 2 C6	998	Not applicable	more
V692 — Other	9998		

Vehicle Impact 2 +/- D		—	—
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Case Vehicle Tires & Rims

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Variable Number and Name	Code Value	Code Description	Other Options
V701 — Left Front Wheel Damaged	1	Yes	more
V702 — Right Front Wheel Damaged	0	No	more
V703 — Right Rear Wheel Damaged	0	No	more
V704 — Left Rear Wheel Damaged	0	No	more
V705 — Left Front Tire Tread Type	4	All Weather	more
V706 — Right Front Tire Tread Type	4	All Weather	more
V707 — Right Rear Tire Tread Type	4	All Weather	more
V708 — Left Rear Tire Tread Type	4	All Weather	more
V709 — Left Front Carcass Construction	3	Radial	more
V710 — Right Front Carcass Construction	3	Radial	more
V711 — Right Rear Carcass Construction	3	Radial	more
V712 — Left Rear Carcass Construction	3	Radial	more
V717 — Left Front Tire Size	21565R1698	—	—
V718 — Right Front Tire Size	21565R1698	—	—
V719 — Right Rear Tire Size	21565R1698	—	—
V720 — Left Rear Tire Size	21565R1698	—	—

Case Vehicle Fuel, Tank, Fire

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Variable Number and Name	Code Value	Code Description	Other Options
V801 — Propulsive Fuel Type	1	Gasoline	more
V802 — Main Tank Location	322	Within frame/centered laterally -	more



		within vertically	
V803 — Main Filler Cap Location	133	—	—
V804 — Main Tank Material	9	Unknown	more
V805 — Aux Tank Type	8	Not applicable (not equipped)	more
V806 — Aux Tank Location	888	Not applicable (not equipped)	more
V807 — Aux Filler Cap Location	888	Not applicable (not equipped)	more
V808 — Aux Tank Material	8	Not applicable	more
V901 — Fuel Leakage From Crash	0	No	more
V1001 — Fire In Or On Case Vehicle	0	No	more

Case Vehicle Exterior

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Variable Number and Name	Code Value	Code Description	Other Options
V1101 — Hood Latch Released	0	No	more
V1102 — Hood Latch Damaged	1	Yes	more
V1103 — Hood Latch Jammed	1	Yes	more
V1104 — Left Hood Hinge Damaged	1	Yes	more
V1105 — Left Hood Hinge Separated	0	No	more
V1106 — Right Hood Hinge Damaged	1	Yes	more
V1107 — Right Hood Hinge Separated	0	No	more
V1108 — Hood Remained On Vehicle	1	Yes	more
V1109 — Rear Hood Edge Elevated	1	Yes	more
V1110 — Edge Contacted Windshield	1	Yes	more
V1111 — Edge Penetrated Windshield	0	No	more
V1112 — Hood Latch Location	1	Front of Vehicle	more
V1113 — Eng/Transmissn Mount Separation	0	No	more
V1114 — Steerng Column Flex Coupling	9	Unknown if equipped	more
V1115 — Steerng Column Coupling Damaged	9	Unknown	more
V1116 — Steerng Column Coupling Separated	9	Unknown	more
V1117 — Eng Comp Telescopng Unit	88	Not collected	more
V1118 — Comp Orig/Telescopd Diff	888	Not collected	more
V1119 — Left Side Body Mount Separation	8	Not applicable (unitized)	more

V1120 — Upper Left A-pillar Separation	0	No	more
V1121 — Lower Left A-pillar Separation	4	No separation, but damaged	more
V1122 — Upper Left B-pillar Separation	0	No	more
V1123 — Lower Left B-pillar Separation	0	No	more
V1124 — Upper Left C-pillar Separation	0	No	more
V1125 — Lower Left C-pillar Separation	0	No	more
V1126 — Upper Left D-pillar Separation	0	No	more
V1127 — Lower Left D-pillar Separation	0	No	more
V1128 — Left Front Door Opening Cause	0	Door did not open	more
V1129 — Left Rear Door Opening Cause	0	Door did not open	more
V1130 — Left Front Door Jammed Closed	1	Yes	more
V1131 — Left Rear Door Jammed Closed	0	No	more
V1132 — Rear Door Type	2	One-way tailgate	more
V1133 — Rear Door Opening Cause	0	Door did not open	more
V1134 — Rear Door Jammed Closed	0	No	more
V1135 — Luggage Partition Damagd	8	Not applicable	more
V1136 — Spare Tire Status	8	Not collected	more
V1137 — Trailer Hitch Type	0	No hitch	more
V1138 — Trailer Type	0	No trailer	more
V1139 — Right Side Body Mount Separation	8	Not applicable (unitized)	more
V1140 — Upper Right A-pillar Separation	0	No	more
V1141 — Lower Right A-pillar Separation	0	No	more
V1142 — Upper Right B-pillar Separation	0	No	more
V1143 — Lower Right B-pillar Separation	0	No	more
V1144 — Upper Right C-pillar	0	No	more

Separation			
V1145 — Lower Right C-pillar Separation	0	No	more
V1146 — Upper Right D-pillar Separation	0	No	more
V1147 — Lower Right D-pillar Separation	0	No	more
V1148 — Right Front Door Opening Cause	00	Door did not open	more
V1149 — Right Rear Door Opening Cause	00	Door did not open	more
V1150 — Right Front Door Jammed Closed	0	No	more
V1151 — Right Rear Door Jammed Closed	0	No	more
V1152 — Van Rear Door Type	8	Not applicable (not a van)	more
V1153 — Windshield Cracked		Yes	more
V1154 — Windshield Broken	0	No	more
V1155 — Windshield Cracked or Broken by Occupant	0	No	more
V1156 — Bond Separation Extent	0	None	more
V1157 — Windshield Code		—	—
V1158 — Did Sun/T Roof Open	0	No	more

Case Vehicle Steering Column/Rim

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Variable Number and Name	Code Value	Code Description	Other Options
V1201 — Steering Wheel Rim Damage	0	None	more
V1202 — Number of Steering Wheel Spokes	4	4 spokes	more

V1203 — Steering Wheel Spoke Damage	0	None	more
V1204 — Column Tilt Feature	3	Middle	more
V1205 — Column Swing-away Feature	0	Not equipped	more
V1206 — Column Telescoping Feature	0	Not equipped	more
V1207 — Wheel Energy Absorb Device	8	Not collected	more
V1208 — Wheel Ea Orig/Damaged Diff	888	Not collected	more
V1209 — Column Energy Absorb Device	88	Not collected	more
V1210 — Column Ea Orig/Comprss Diff	888	Not collected	more
V1211 — Shear Capsule Separation	888	Not collected	more
V1212 — Column Vertical Rotation	0	No apparent rotation	more
V1213 — Column Lateral Rotation	0	No apparent rotation	more
V1214 — Steering Wheel Hub Damage	0	None	more

Case Vehicle Intrusion



Click for intrusion figures

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Variable Number and Name	Code Value	Code Description	Other Options
V1301 — Occupant Compartment Intrusion	0	No	more
V1302 — Was Intrusion Catastrophic	8	Not applicable	more
V1303 — Intrusion Number 01	00	No Intrusion, None	more
V1304 — Intrusion 01 Occupant Space Number	00	No Intrusion, None	more
V1305 — Intrusion 01 Intruding Object	00	No Intrusion, None	more
V1306 — Intrusion 01 Assoc Event Number	0	No Intrusion, None	more
V1307 — Intrusion 01 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1308 — Intrusion 01 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1309 — Intrusion 01 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more

V1310 — Intrusion 01 Occupant Number	00	No contact or no intrusion	more
V1311 — Intrusion 01 Injury Number	00	No injury or no intrusion	more
V1312 — Intrusion 01 Occupant Number	00	No contact or no intrusion	more
V1313 — Intrusion 01 Injury Number	99	Contact, injury unknown or data not collected	more
V1314 — Intrusion Number 02	00	No Intrusion, None	more
V1315 — Intrusion 02 Occupant Space Number	00	No Intrusion, None	more
V1316 — Intrusion 02 Intruding Object	00	No Intrusion, None	more
V1317 — Intrusion 02 Assoc Event Number	0	No Intrusion, None	more
V1318 — Intrusion 02 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1319 — Intrusion 02 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1320 — Intrusion 02 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1321 — Intrusion 02 Occupant Number	00	No contact or no intrusion	more
V1322 — Intrusion 02 Injury Number	00	No injury or no intrusion	more
V1323 — Intrusion 02 Occupant Number	00	No contact or no intrusion	more
V1324 — Intrusion 02 Injury Number	99	Contact, injury unknown or data not collected	more
V1325 — Intrusion Number 03	00	No Intrusion, None	more
V1326 — Intrusion 03 Occupant Space Number	00	No Intrusion, None	more
V1327 — Intrusion 03 Intruding Object	00	No Intrusion, None	more
V1328 — Intrusion 03 Assoc Event Number	0	No Intrusion, None	more
V1329 — Intrusion 03 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1330 — Intrusion 03 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1331 — Intrusion 03 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1332 — Intrusion 03 Occupant Number	00	No contact or no intrusion	more
V1333 — Intrusion 03 Injury Number	00	No injury or no intrusion	more

V1334 — Intrusion 03 Occupant Number	00	No contact or no intrusion	more
V1335 — Intrusion 03 Injury Number	99	Contact, injury unknown or data not collected	more
V1336 — Intrusion Number 04	00	No Intrusion, None	more
V1337 — Intrusion 04 Occupant Space Number	00	No Intrusion, None	more
V1338 — Intrusion 04 Intruding Object	00	No Intrusion, None	more
V1339 — Intrusion 04 Assoc Event Number	0	No Intrusion, None	more
V1340 — Intrusion 04 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1341 — Intrusion 04 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1342 — Intrusion 04 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1343 — Intrusion 04 Occupant Number	00	No contact or no intrusion	more
V1344 — Intrusion 04 Injury Number	00	No injury or no intrusion	more
V1345 — Intrusion 04 Occupant Number	00	No contact or no intrusion	more
V1346 — Intrusion 04 Injury Number	99	Contact, injury unknown or data not collected	more
V1347 — Intrusion Number 05	00	No Intrusion, None	more
V1348 — Intrusion 05 Occupant Space Number	00	No Intrusion, None	more
V1349 — Intrusion 05 Intruding Object	00	No Intrusion, None	more
V1350 — Intrusion 05 Assoc Event Number	0	No Intrusion, None	more
V1351 — Intrusion 05 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1352 — Intrusion 05 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1353 — Intrusion 05 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1354 — Intrusion 05 Occupant Number	00	No contact or no intrusion	more
V1355 — Intrusion 05 Injury Number	00	No injury or no intrusion	more
V1356 — Intrusion 05 Occupant Number	00	No contact or no intrusion	more
	99	Contact, injury unknown or data	

V1357 — Intrusion 05 Injury Number		not collected	more
V1358 — Intrusion Number 06	00	No Intrusion, None	more
V1359 — Intrusion 06 Occupant Space Number	00	No Intrusion, None	more
V1360 — Intrusion 06 Intruding Object	00	No Intrusion, None	more
V1361 — Intrusion 06 Assoc Event Number	0	No Intrusion, None	more
V1362 — Intrusion 06 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1363 — Intrusion 06 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1364 — Intrusion 06 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1365 — Intrusion 06 Occupant Number	00	No contact or no intrusion	more
V1366 — Intrusion 06 Injury Number	00	No injury or no intrusion	more
V1367 — Intrusion 06 Occupant Number	00	No contact or no intrusion	more
V1368 — Intrusion 06 Injury Number	99	Contact, injury unknown or data not collected	more
V1369 — Intrusion Number 07	00	No Intrusion, None	more
V1370 — Intrusion 07 Occupant Space Number	00	No Intrusion, None	more
V1371 — Intrusion 07 Intruding Object	00	No Intrusion, None	more
V1372 — Intrusion 07 Assoc Event Number	0	No Intrusion, None	more
V1373 — Intrusion 07 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1374 — Intrusion 07 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1375 — Intrusion 07 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1376 — Intrusion 07 Occupant Number	00	No contact or no intrusion	more
V1377 — Intrusion 07 Injury Number	00	No injury or no intrusion	more
V1378 — Intrusion 07 Occupant Number	00	No contact or no intrusion	more
V1379 — Intrusion 07 Injury Number	99	Contact, injury unknown or data not collected	more
V1380 — Intrusion Number 08	00	No Intrusion, None	more

V1381 — Intrusion 08 Occupant Space Number	00	No Intrusion, None	more
V1382 — Intrusion 08 Intruding Object	00	No Intrusion, None	more
V1383 — Intrusion 08 Assoc Event Number	0	No Intrusion, None	more
V1384 — Intrusion 08 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1385 — Intrusion 08 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1386 — Intrusion 08 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1387 — Intrusion 08 Occupant Number	00	No contact or no intrusion	more
V1388 — Intrusion 08 Injury Number	00	No injury or no intrusion	more
V1389 — Intrusion 08 Occupant Number	00	No contact or no intrusion	more
V1390 — Intrusion 08 Injury Number	99	Contact, injury unknown or data not collected	more
V1391 — Intrusion Number 09	00	No Intrusion, None	more
V1392 — Intrusion 09 Occupant Space Number	00	No Intrusion, None	more
V1393 — Intrusion 09 Intruding Object	00	No Intrusion, None	more
V1394 — Intrusion 09 Assoc Event Number	0	No Intrusion, None	more
V1395 — Intrusion 09 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1396 — Intrusion 09 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1397 — Intrusion 09 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1398 — Intrusion 09 Occupant Number	00	No contact or no intrusion	more
V1399 — Intrusion 09 Injury Number	00	No injury or no intrusion	more
V1400 — Intrusion 09 Occupant Number	00	No contact or no intrusion	more
V1401 — Intrusion 09 Injury Number	99	Contact, injury unknown or data not collected	more
V1402 — Intrusion Number 10	00	No Intrusion, None	more
V1403 — Intrusion 10 Occupant Space Number	00	No Intrusion, None	more
V1404 — Intrusion 10 Intruding	00		

Object		No Intrusion, None	more
V1405 — Intrusion 10 Assoc Event Number	0	No Intrusion, None	more
V1406 — Intrusion 10 Max Intrusion X-axis	00 cm	0 cm or No Intrusion	more
V1407 — Intrusion 10 Max Intrusion Y-axis	00 cm	0 cm or No Intrusion	more
V1408 — Intrusion 10 Max Intrusion Z-axis	00 cm	0 cm or No Intrusion	more
V1409 — Intrusion 10 Occupant Number	00	No contact or no intrusion	more
V1410 — Intrusion 10 Injury Number	00	No injury or no intrusion	more
V1411 — Intrusion 10 Occupant Number	00	No contact or no intrusion	more
V1412 — Intrusion 10 Injury Number	99	Contact, injury unknown or data not collected	more
V1413 — Door Intrusion Number 01	88	Not Applicable	more
V1414 — Door Intrusion Number 01 Cause	8	Not applicable	more
V1415 — Door Intrusion Number 02	88	Not Applicable	more
V1416 — Door Intrusion Number 02 Cause	8	Not applicable	more
V1417 — Door Intrusion Number 03	88	Not Applicable	more
V1418 — Door Intrusion Number 03 Cause	8	Not applicable	more
V1419 — Door Intrusion 01 Component	88	Not Applicable	more
V1420 — Door Intrusion 01 Component Damaged 1	8	Not Applicable	more
V1421 — Door Intrusion 01 Component Damaged 2	8	Not Applicable	more
V1422 — Door Intrusion 02 Component	88	Not Applicable	more
V1423 — Door Intrusion 02 Component Damaged 1	8	Not Applicable	more
V1424 — Door Intrusion 02 Component Damaged 2	8	Not Applicable	more
V1425 — Door Intrusion 03 Component	88	Not Applicable	more
V1426 — Door Intrusion 03 Component Damaged 1	8	Not Applicable	more
V1427 — Door Intrusion 03 Component Damaged 2	8	Not Applicable	more

V1428 — Door Intrusion 04 Component	88	Not Applicable	more
V1429 — Door Intrusion 04 Component Damaged 1	8	Not Applicable	more
V1430 — Door Intrusion 04 Component Damaged 2	8	Not Applicable	more

Case Vehicle Airbag(s)



[Click for Driver airbag figure](#)



[Click for Passenger airbag figure](#)

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Variable Number and Name	Code Value	Code Description	Other Options
V1501 — Driver Airbag Equipped	1	Yes	more
V1502 — Driver Airbag Deployed	1	Yes	more
V1503 — Driver Airbag Condition	0	No Damage	more
V1504 — Passenger Airbag Equip	1	Yes	more
V1505 — Passenger Airbag Deployed	1	Yes	more
V1506 — Passenger Airbag Condition	0	No Damage	more
V1507 — Steering Wheel Airbag Tether	1	Yes	more
V1508 — Driver Airbag Marked By Contact	0	No	more
V1509 — Passenger Airbag Tether	0	No	more
V1510 — Passenger Airbag Marked By Contact	0	No	more

Case Vehicle Interior

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Variable Number and Name	Code Value	Code Description	Other Options
V1601 — Left Front Door Damaged	0	No	more
V1602 — Right Front Door Damaged	0	No	more
V1603 — Left Front Hardware Damaged	0	No	more
V1604 — Right Front Hardware Damaged	0	No	more
V1605 — Left Front Armrest Damaged	0	No	more

V1606 — Right Front Armrest Damaged	0	No	more
V1607 — Left Front Glass Damaged	0	No	more
V1608 — Right Front Glass Damaged	0	No	more
V1609 — Left Rear Door Area Damaged	0	No	more
V1610 — Right Rear Door Area Damaged	0	No	more
V1611 — Left Rear Hardware Damaged	0	No	more
V1612 — Right Rear Hardware Damaged	0	No	more
V1613 — Left Rear Armrest Damaged	0	No	more
V1614 — Right Rear Armrest Damaged	0	No	more
V1615 — Left Rear Glass Damaged	0	No	more
V1616 — Right Rear Glass Damaged	0	No	more
V1617 — Left Roof Side Rail Damaged	0	No	more
V1618 — Right Roof Side Rail Damaged	0	No	more
V1619 — Left B-pillar Damaged	0	No	more
V1620 — Right B-pillar Damaged	0	No	more
V1621 — Left C-pillar Damaged	0	No	more
V1622 — Right C-pillar Damaged	0	No	more
V1623 — Left D-pillar Damaged	0	No	more
V1624 — Right D-pillar Damaged	0	No	more
V1625 — Left Headlining Damaged	0	No	more
V1626 — Right Headlining Damaged	0	No	more
V1627 — Left Roof Structure Damaged	0	No	more
V1628 — Right Roof Structure Damaged	0	No	more
V1629 — Left T/Sun Roof Damaged	0	No	more
V1630 — Right T/Sun Roof Damaged	0	No	more
V1631 — Other Left Side Item Damaged	8	Not applicable	more
V1632 — Other Right Side Item Damaged	8	Not applicable	more
V1633 — Foot Controls Damaged	0	No	more

V1634 — Ignition Key Damaged	0	No	more
V1635 — Rear View Mirror Damaged	0	No	more
V1636 — Sunvisor/Fitting Damaged	0	No	more
V1637 — Windshield Molding Damaged	0	No	more
V1638 — Left A-pillar Damaged	0	No	more
V1639 — Right A-pillar Damaged	0	No	more
V1640 — Center Console Damaged	0	No	more
V1641 — Transmission Lever Damaged	0	No	more
V1642 — Horn/Spoke Shroud Damaged	0	No	more
V1643 — Upper Panel Damaged	0	No	more
V1644 — Mid Panel Damaged	0	No	more
V1645 — Lower Panel Damaged	3	No, occupant contact	more
V1646 — Ashtray Damaged	0	No	more
V1647 — Control Knob/Lever Damaged	0	No	more
V1648 — Glove Compartment Area Damaged	0	No	more
V1649 — Instruments Damaged	0	No	more
V1650 — Park Brake Release Damaged	0	No	more
V1651 — Park Brake Pedal Damaged	0	No	more
V1652 — A/C Or Upper Vent Damaged	0	No	more
V1653 — Heater Or A/C Duct Damaged	0	No	more
V1654 — Radio Damaged	0	No	more
V1655 — Other Item Damaged	8	Not applicable	more
V1656 — Rear Window Damaged	0	No	more
V1657 — Rear Window Header Damaged	0	No	more
V1658 — Vertical Console Damaged	0	No	more
V1659 — Roof Console Damaged	0	No	more

Case Vehicle Seats

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Variable Number and Name	Code Value	Code Description	Other Options

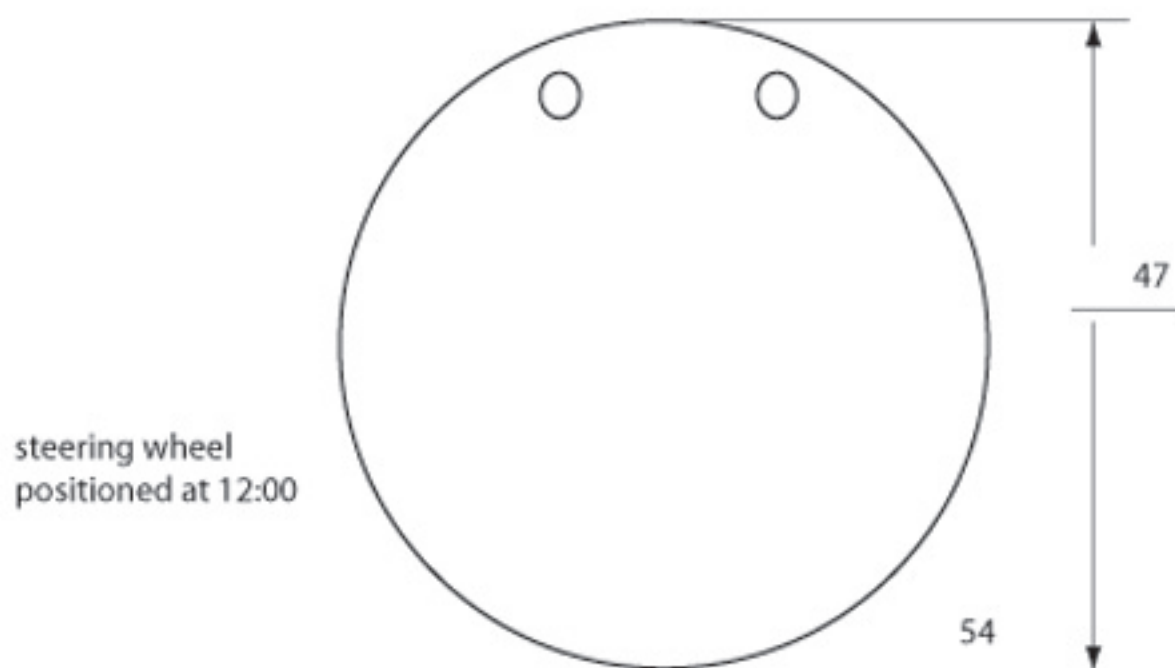
V1701 — Driver Front Seat Type	05	Bucket	more
V1702 — Passenger Front Seat Type	05	Bucket	more
V1703 — Driver Seat Mount Type	1	Standard	more
V1704 — Passenger Seat Mount Type	1	Standard	more
V1705 — Driver Swivel Mechanism Equipped	0	No	more
V1706 — Passenger Swivel Mechanism Equipped	0	No	more
V1707 — Driver Seat Original Equipment	1	Yes	more
V1708 — Passenger Seat Original Equipment	1	Yes	more
V1709 — Driver Seat/Rear Occupant Contact	8	Not applicable	more
V1710 — Passenger Seat/Rear Occupant Contact	0	No	more
V1711 — Driver Seat Damage	0	None	more
V1712 — Passenger Seat Damage	0	None	more
V1713 — Center Front Armrest Damaged	0	No	more
V1714 — Driver Seat Rotation	0	None apparent	more
V1715 — Passenger Seat Rotation	0	None apparent	more
V1716 — Driver Seat-back Type	3	Reclining	more
V1717 — Passenger Seat-back Type	3	Reclining	more
V1718 — Driver Seat-back Lock Type	1	Manual	more
V1719 — Passenger Seat-back Lock Type	1	Manual	more
V1720 — Driver Seat-back Lock Held	1	Yes	more
V1721 — Passenger Seat-back Lock Held	1	Yes	more
V1722 — Driver Recliner Mechanism Held	1	Yes	more
V1723 — Passenger Recliner Mechanism Held	1	Yes	more
V1724 — Driver Head Restraint Type	1	Adjustable	more
V1725 — Passenger Head Restraint Type	1	Adjustable	more

V1726 — Driver Head Rest Removed	0	No	more
V1727 — Passenger Head Rest Removed	0	No	more
V1728 — Driver Head Rest Adjustment	2	Down	more
V1729 — Passenger Head Rest Adjustment	2	Down	more
V1730 — Driver Head Rest Damage	0	None	more
V1731 — Passenger Head Rest Damage	0	None	more
V1732 — Driver Seat Adjustment Type	2	Power	more
V1733 — Passenger Seat Adjustment Type	2	Power	more
V1734 — Driver Seat Adjustment Provided	3	6-way	more
V1735 — Passenger Seat Adjustment Provided	3	6-way	more
V1736 — Driver Seat Adjuster Damage	0	None	more
V1737 — Passenger Seat Adjuster Damage	0	None	more
V1738 — Driver Seat Adjuster Separation	8	Not applicable	more
V1739 — Passenger Seat Adjuster Separation	8	Not applicable	more
V1740 — Driver Seat Pre-crash Position	2	Middle	more
V1741 — Passenger Seat Pre-crash Position	3	Rearward	more
V1742 — Left Rear Seat Type	2	Folding	more
V1743 — Right Rear Seat Type	2	Folding	more
V1744 — Left Rear Seat Damaged	1	Backrest only (damaged or loosened)	more
V1745 — Right Rear Seat Damaged	1	Backrest only (damaged or loosened)	more
V1746 — Center Rear Armrest Damaged	8	Not applicable (No Center Armrest)	more
V1747 — Left Rear Seat-back Left Lock Equipped	1	Yes	more
V1748 — Right Rear Seat-back Left Lock Equipped	0	No	more

V1749 — Left Rear Seat-back Left Lock Held	1	Yes	more
V1750 — Right Rear Seat-back Left Lock Held	8	Not applicable	more
V1751 — Left Rear Seat-back Right Lock Equipped	0	No	more
V1752 — Right Rear Seat-back Right Lock Equipped	1	Yes	more
V1753 — Left Rear Seat-back Right Lock Held	8	Not applicable	more
V1754 — Right Rear Seat-back Right Lock Held	1	Yes	more
V1755 — Left 3rd Seat Equipped	0	No	more
V1756 — Right 3rd Seat Equipped	0	No	more
V1757 — Left 3rd Seat Backrest Damaged	8	Not applicable	more
V1758 — Right 3rd Seat Backrest Damaged	8	Not applicable	more
V1759 — Left 3rd Seat Cushion Damaged	8	Not applicable	more
V1760 — Right 3rd Seat Cushion Damaged	8	Not applicable	more
V1761 — Rear Head Restraints	1	Equipped	more

Airbag number: 1220

Driver Airbag

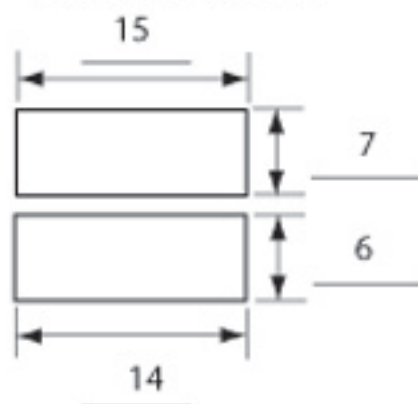


Vents: ☒ Y N
if yes, how many: 2

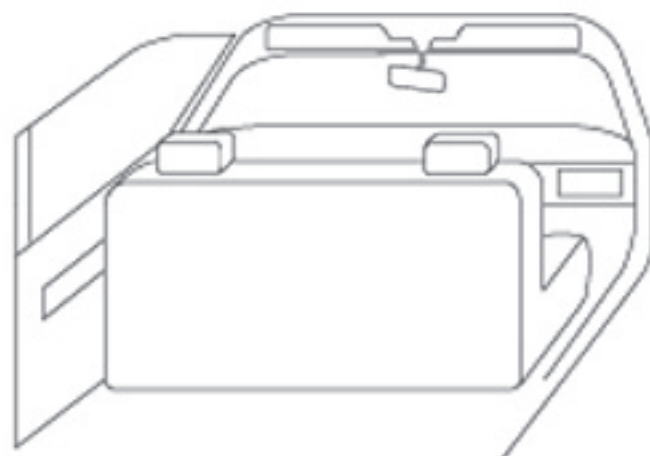
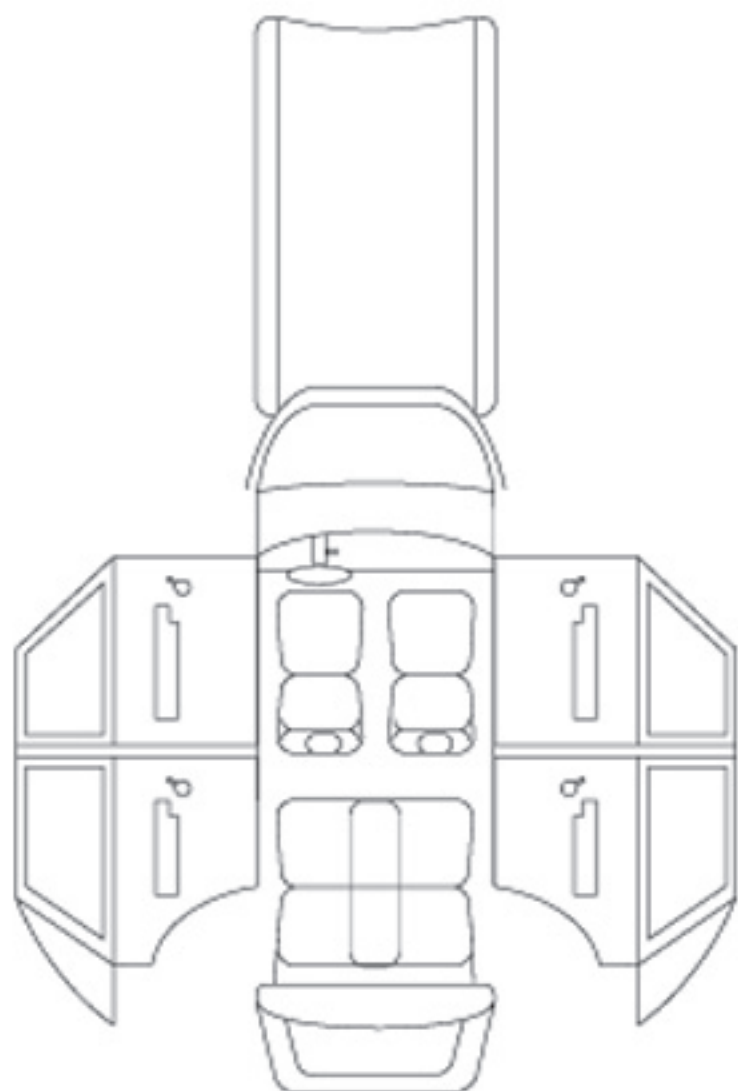
vents at 11 and 1 o'clock

Tethers: ☒ Y N
if yes, how many: 2

Driver Airbag Doors



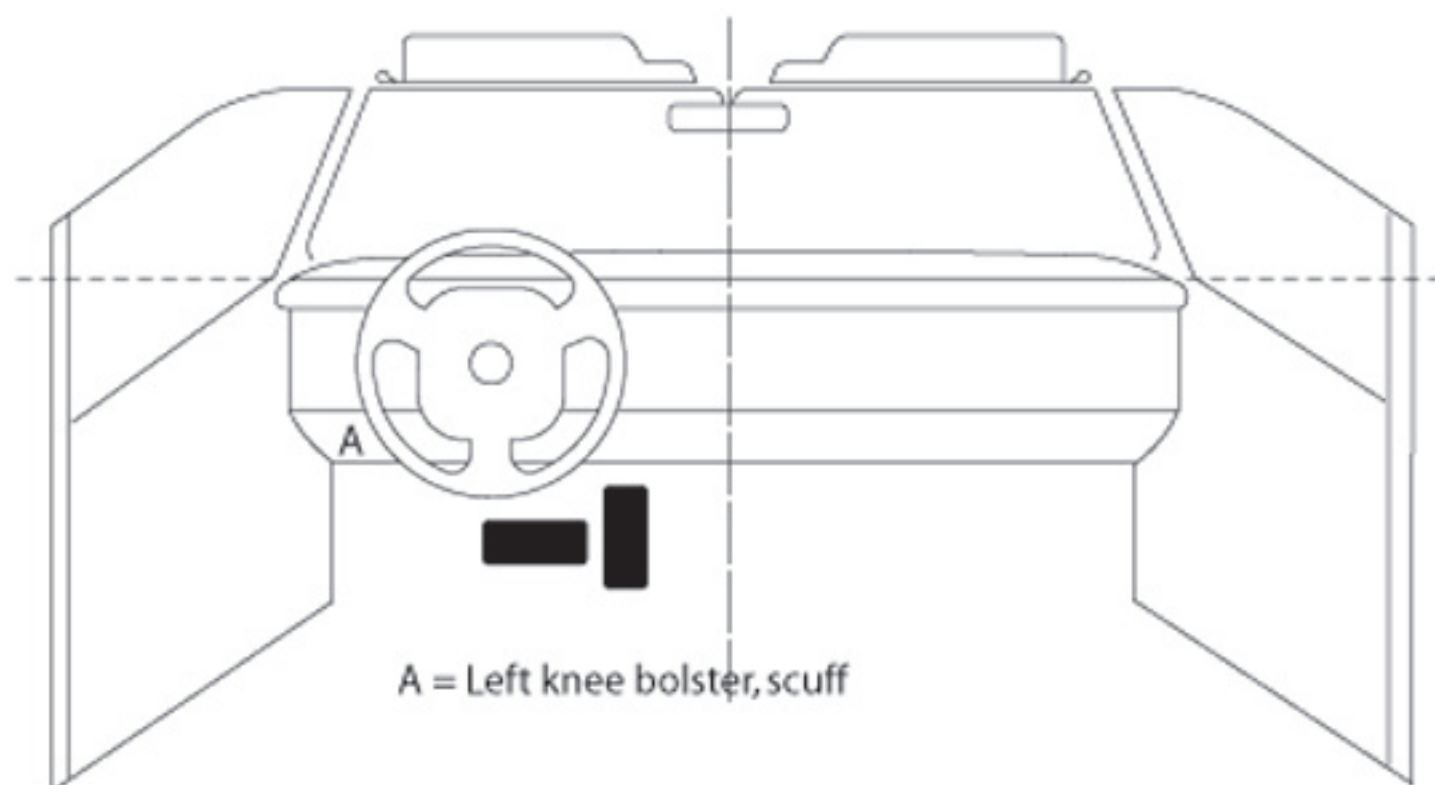
H-Pattern



DR Belt: Locked into retracted position,
scrapes on continuous loop

RF Belt: Not locked and not retracted

RR Belt: Little slack in RR , belts locked,
can't pull seat up



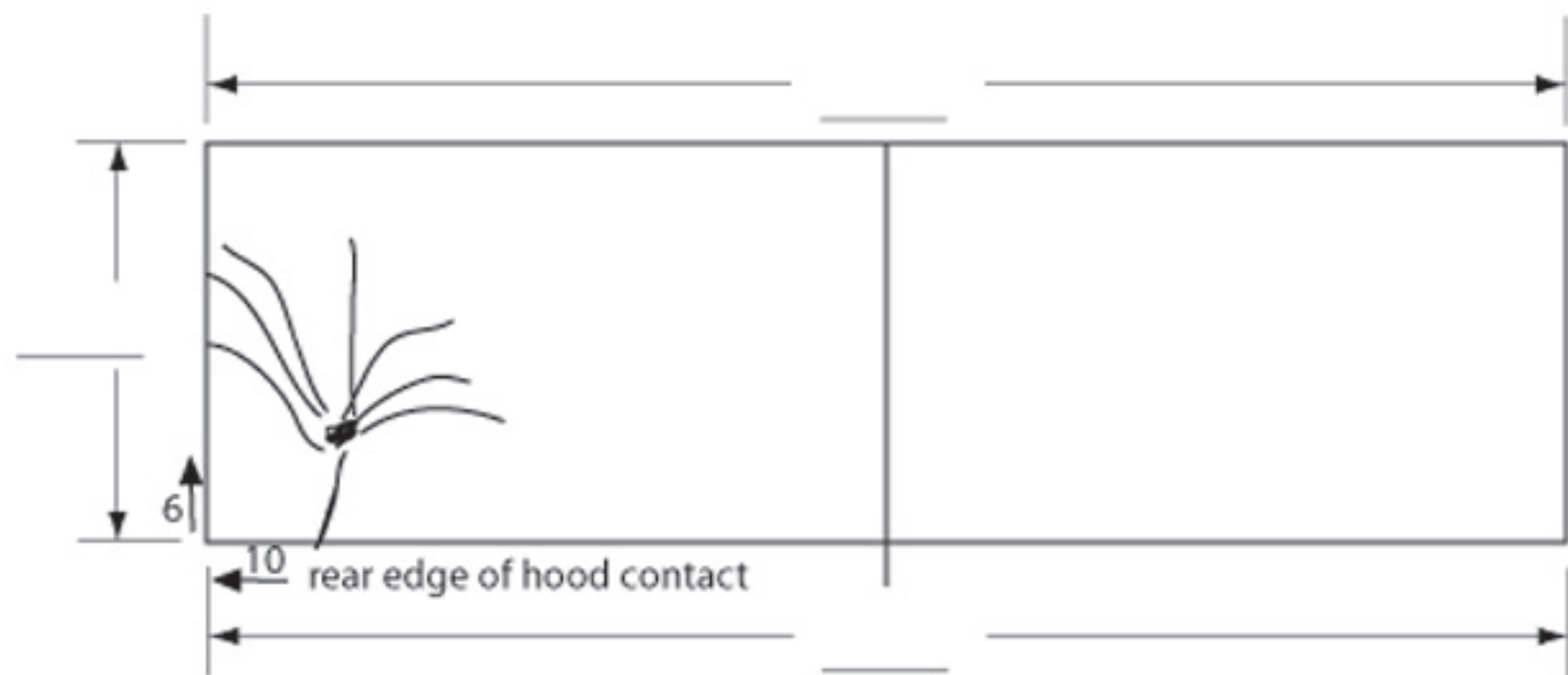
1 = Definitely 2 = Probably 3 = Possible

INTRUSION IT-1

Location of Intrusion	Intruded Component	(All Measurements Are in Centimeters)			Dominant Crush Direction
		Comparison Value	–	Intruded Value = Intrusion	
none			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	
			–	=	

OCCUPANT CONTACT WORKSHEET

Contact	Interior Component Contacted	Occupant No. if Known	Body Region if Known	Supporting Physical Evidence	Confidence Level of Contact Point
A	Left knee bolster	1	1	Scuff	1
B					
C					
D					
E					
F					
G					
H					
I					



WINDSHIELD MARK ON CASE VEHICLE:

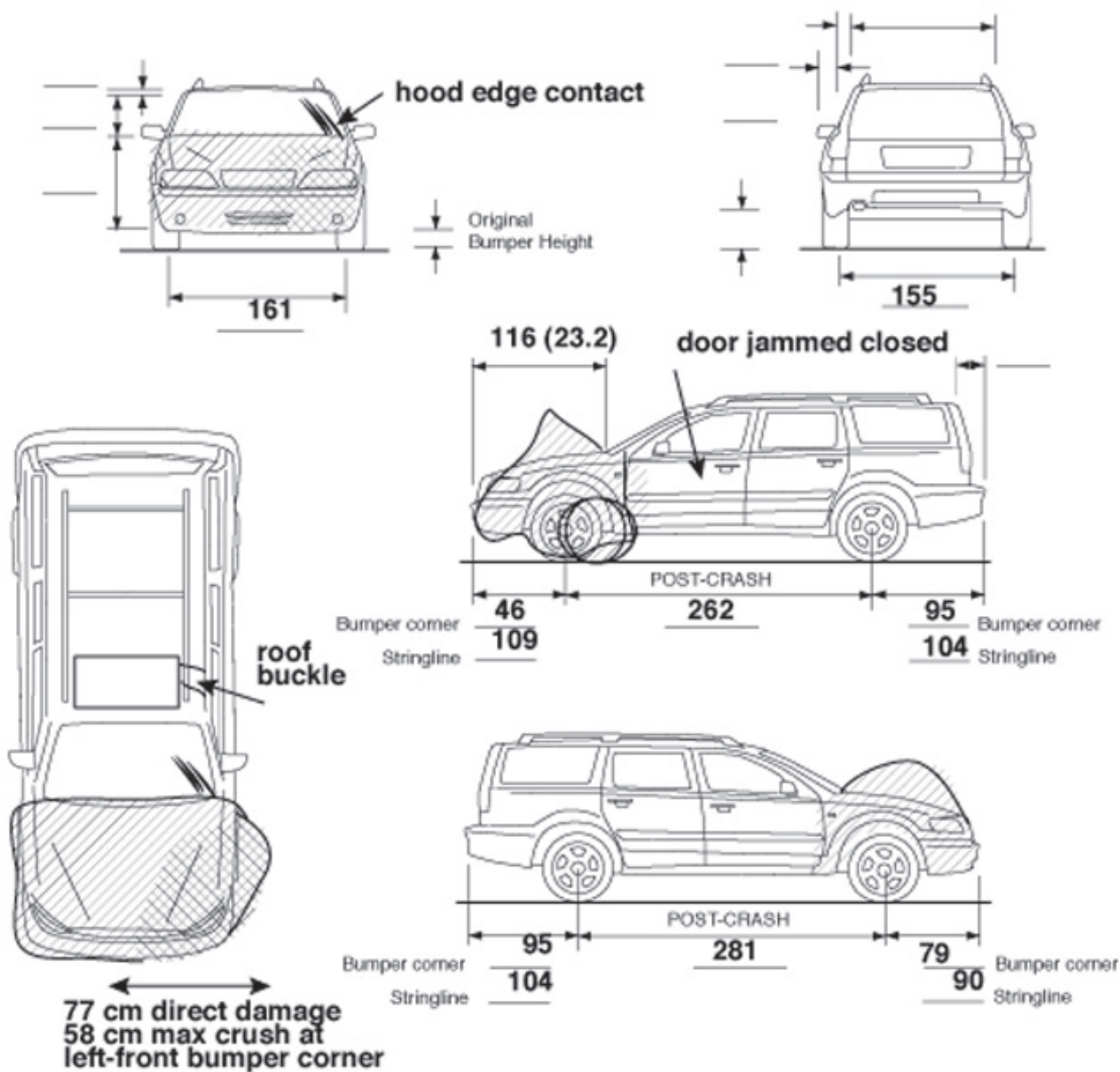
VOLVO
PILKINGTON

//

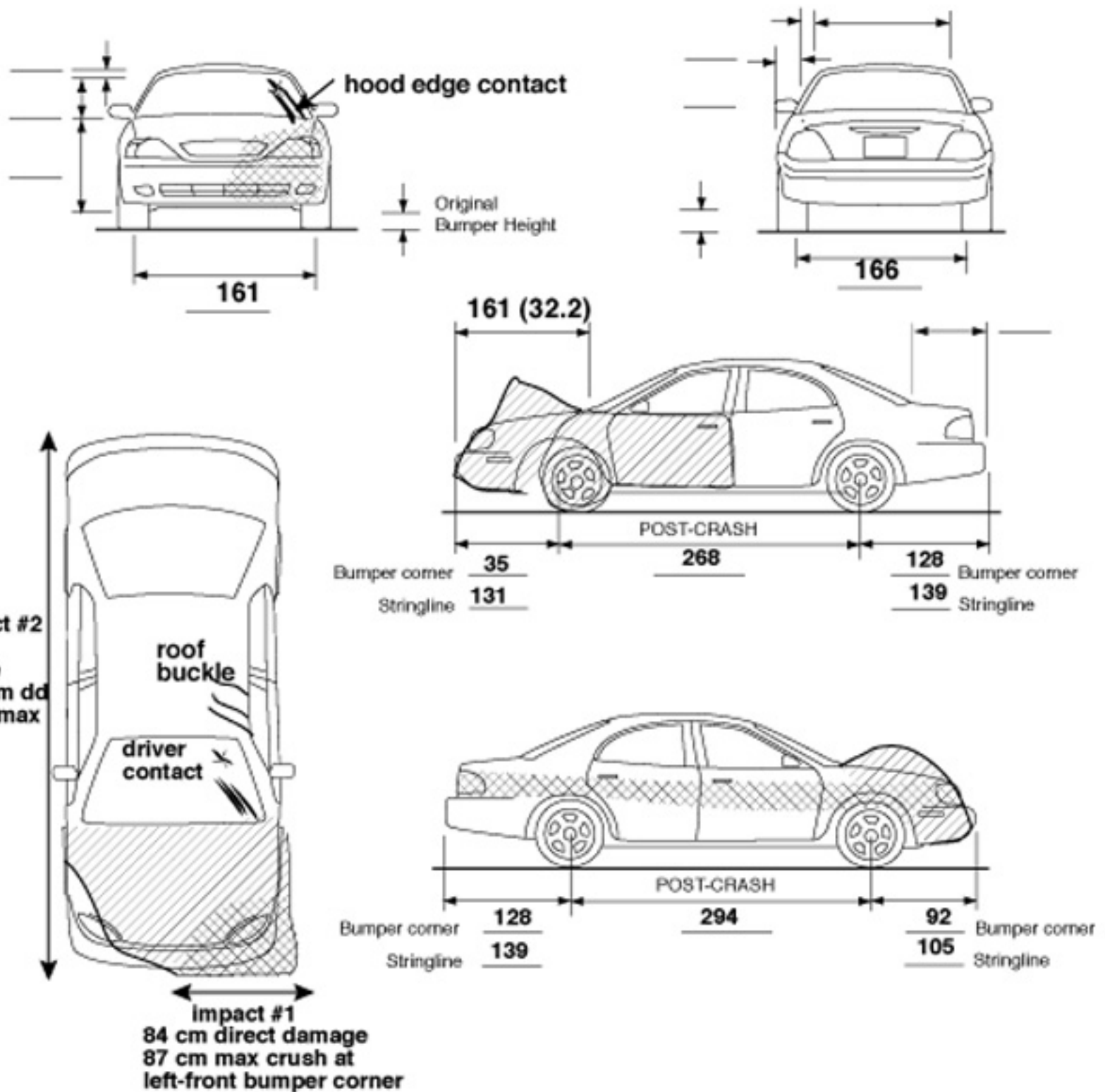
(E) ASIM125500T682

43R-001574
ITALY
1....

MEASUREMENTS IN CENTIMETERS

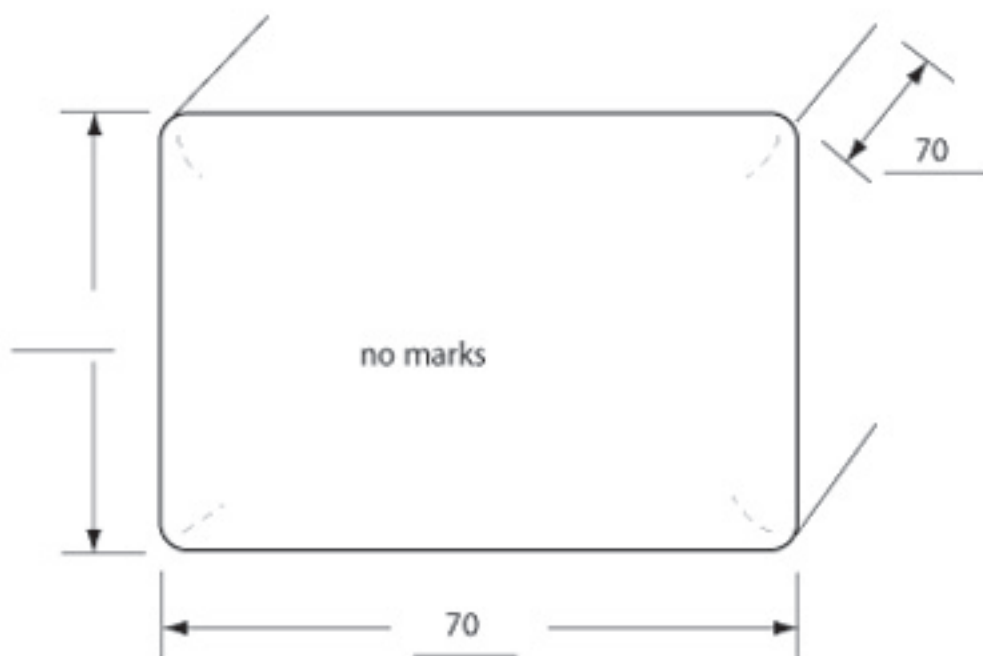


MEASUREMENTS IN CENTIMETERS



Airbag number: 3969

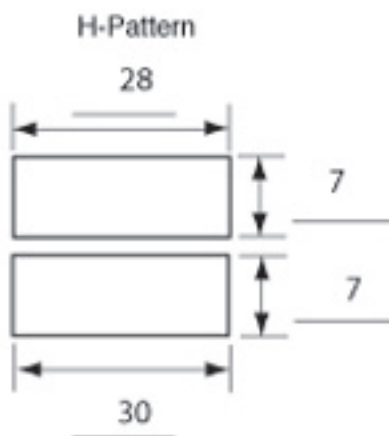
Passenger Airbag



Vents: ☒ Y N
if yes, how many: 2
vents at 10 and 2 o'clock

Tethers: Y ☒ N
if yes, how many: _____

Passenger Airbag Doors



Single Door













































1220



IC
INFLATABLE
CURTAIN

IC
INFLATABLE
CURTAIN



































5
4
3
2
1
10
9
8
7
6

























































